Amendments to the Claims

Please amend claims 1, 3-5, 7, and 36-39 as provided below.

Please cancel claims 6 and 40 without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for treating abnormal cells in a mammal comprising administering to the mammal an effective amount of ~~virus selected from~~ an echovirus ~~viruses, and modified forms and combinations thereof,~~ which recognizes $\alpha_2\beta_1$ for infectivity of the cells such that at least one of the cells are killed by the virus, wherein the abnormal cell is a cancer cell expressing $\alpha_2\beta_1$.

2. (Original) The method according to claim 1 further comprising subjecting the mammal to more than one treatment with the virus, and wherein the virus in each of the treatments is the same or different.

3. (Currently Amended) The method according to claim [[1]] 5, wherein the virus comprises an echovirus serotype ~~or a modified form thereof~~.

4. (Currently Amended) The method according to claim [[3]] 1, wherein the virus is EV1 or EV8.

5. (Currently Amended) The method according to claim [[3]] 1, wherein the virus is [[a]] modified ~~echovirus~~ to express the peptide motif RGD on its viral capsid surface.

6. (Canceled)

7. (Currently Amended) The method according to claim [[5]] 3 wherein the ~~modified echovirus~~ virus is a modified form of EV1 or EV8.

8. (Withdrawn) The method according to claim 1 wherein the virus is administered to the mammal in combination with a second virus which infects the abnormal cells.

9. (Withdrawn) The method according to claim 8 wherein the abnormal cells express ICAM-1 and the second virus recognizes ICAM-1 for infectivity of the abnormal cells.

10. (Withdrawn) The method according to claim 9 wherein the second virus is a Coxsackievirus or a modified form thereof.

11. (Withdrawn) The method according to claim 10 wherein the Coxsackievirus is a Coxsackievirus serotype selected from A13, Al 5, Al 8 and A21.

12. (Withdrawn) The method according to claim 1 wherein the abnormal cells are cancer cells.

13. (Withdrawn) The method according to claim 12 wherein the cancer cells are ovarian cancer cells, melanoma cells, prostate cancer cells, breast cancer cells, pancreatic cancer cells, colon cancer cells or colorectal cancer cells, or are cells that have spread from ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer or colorectal cancer.

14. (Withdrawn) The method according to claim 1 wherein the abnormal cells have up-regulated expression of $\alpha_2\beta_1$.

15. (Withdrawn) The method according to claim 1 wherein the virus is administered topically, systemically or intratumorally to the mammal.

16. (Withdrawn) A method of screening a sample of abnormal cells from a mammal for susceptibility to virus induced cell death to evaluate administering virus to the mammal for treatment of the abnormal cells, the method comprising:

a) contacting the cells with a virus for a period of time sufficient to allow infection of the cells by the virus; and

b) determining whether the virus has infected the cells and caused death of at least one of the abnormal cells;

wherein the virus is selected from echo viruses, and modified forms and combinations thereof, which recognize $\alpha_2\beta_1$ for infectivity of the abnormal cells.

17. (Withdrawn) The method according to claim 16 wherein the virus is an echovirus serotype or a modified form thereof.

18. (Withdrawn) The method according to claim 16 wherein the virus is EV1 or EV8.

19. (Withdrawn) The method according to claim 17 wherein the virus is a modified echovirus.

20. (Withdrawn) The method according to claim 19 wherein the virus has been modified to enhance ability of the virus to infect the abnormal cells.

21. (Withdrawn) The method according to claim 19 wherein the modified echovirus is a modified form of EV1 or EV8.

22. (Withdrawn) The method according to claim 16 further comprising comparing the ability of the virus to infect the cells and cause death of the cells, to the ability of a second virus that recognizes $\alpha_2\beta_1$ for infectivity of the cells, subjected to steps (a) and (b) utilizing another sample of the cells, to infect the cells and cause death of the cells.

23. (Withdrawn) The method according to claim 22 wherein the second virus is a different echovirus or modified form thereof.

24. (Withdrawn) The method according to claim 16 wherein the cells are cancer cells.

25. (Withdrawn) The method according to claim 24 wherein the cancer cells are ovarian cancer cells, melanoma cells, prostate cancer cells, breast cancer cells, pancreatic cancer cells, colon cancer cells or colorectal cancer cells, or are cells that have spread from

ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer or colorectal cancer.

26. (Withdrawn) A method of screening a virus for ability to infect and cause death of abnormal cells from a mammal to evaluate administering the virus to the mammal for treatment of the abnormal cells, the method comprising:

a) contacting abnormal cells from the mammal with a virus for a period of time sufficient to allow infection of the cells by the virus; and

b) determining whether the virus has infected and caused death of at least one of the abnormal cells;

wherein the virus is selected from echoviruses and modified forms thereof, which recognize $\alpha_2\beta_1$ for infectivity of the abnormal cells.

27. (Withdrawn) The method according to claim 26 wherein the virus is an echovirus serotype or a modified form thereof.

28. (Withdrawn) The method according to claim 26 wherein the virus is EVl or EVS.

29. (Withdrawn) The method according to claim 27 wherein the virus is a modified echovirus.

30. (Withdrawn) The method according to claim 29 wherein the virus has been modified to enhance the ability of the virus to infect the abnormal cells.

31. (Withdrawn) The method according to claim 29 wherein the modified echovirus is a modified form of EVl or EV8.

32. (Withdrawn) The method according to claim 26 further comprising comparing ability of the virus to infect and cause death of the cells, to the ability of a second virus that recognizes $\alpha_2\beta_1$ for infectivity of the cells, subjected to steps (a) and (b) utilizing another sample of the cells, to infect the cells and cause death of the cells.

33. (Withdrawn) The method according to claim 32 wherein the second virus is a different echovirus or modified form thereof.

34. (Withdrawn) The method according to claim 26 wherein the abnormal cells are cancer cells.

35. (Withdrawn) The method according to claim 34 wherein the cancer cells are ovarian cancer cells, melanoma cells, prostate cancer cells, breast cancer cells, pancreatic cancer cells, colon cancer cells or colorectal cancer cells, or are cells that have spread from ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer or colorectal cancer.

36. (Currently Amended) A method for inducing an immune response in a mammal against abnormal cells expressing $\alpha_2\beta_1$, the method comprising infecting abnormal cells in the mammal with ~~a virus selected from the group consisting of echoviruses, modified forms thereof, and combinations thereof~~ an echovirus, thereby causing lysis of at least one of the cells and inducing an immune response in the mammal against the abnormal cells, wherein the abnormal cell is a cancer cell expressing $\alpha_2\beta_1$.

37. (Currently Amended) The method according to claim ~~36~~ 39, wherein the virus ~~is~~ comprises an echovirus serotype ~~or modified form thereof~~.

38. (Currently Amended) The method according to claim ~~37~~ 36, wherein the virus is EV1 or EV8.

39. (Currently Amended) The method according to claim [[37]] 36 wherein the virus is [[a]] modified ~~echovirus~~ to express the peptide motif RGD on its viral capsid surface.

40. (Canceled)

41. (Original) The method according to claim 39 wherein the modified echovirus is a modified form of EV1 or EV8.

42. (Original) The method according to claim 36 wherein the abnormal cells have up-regulated expression of $\alpha_2\beta_1$.

43. (Withdrawn) The method according to claim 36 wherein the virus is administered to the mammal in combination with a second virus which infects the abnormal cells.

44. (Withdrawn) The method according to claim 43 wherein the abnormal cells express ICAM-1 and the second virus recognizes ICAM-1 for infectivity of the abnormal cells.

45. (Withdrawn) The method according to claim 44 wherein the second virus is a Coxsackievirus or modified form thereof.

46. (Withdrawn) The method according to claim 45 wherein the Coxsackievirus is a Coxsackievirus serotype selected from A13, A15, A18 and A21.

47. (Withdrawn) The method according to claim 36 wherein the abnormal cells are cancer cells.

48. (Withdrawn) The method according to claim 47 wherein the cancer cells are ovarian cancer cells, melanoma cells, prostate cancer cells, breast cancer cells, pancreatic cancer cells, colon cancer cells or colorectal cancer cells, or are cells that have spread from ovarian cancer, melanoma, prostate cancer, breast cancer, pancreatic cancer, colon cancer or colorectal cancer.

49. (Withdrawn) The method according to claim 36 wherein the virus is administered topically, systemically or intratumorally to the mammal.

50. (Withdrawn) A pharmaceutical composition for treating abnormal cells in a mammal, comprising an inoculant for generating virus to treat the cells such that at least one of the cells is killed by the virus, and a pharmaceutically acceptable carrier, wherein the virus recognizes $\alpha_2\beta_1$ for infectivity of the cells and is selected from echoviruses, ~~and~~ modified forms thereof, and combinations thereof.

51. (Withdrawn) The pharmaceutical composition according to claim 50 wherein the virus is an echovirus serotype or modified form thereof.

52. (Withdrawn) The pharmaceutical composition according to claim 51 wherein the virus is EV1 or EV8.

53. (Withdrawn) The pharmaceutical composition according to claim 49 wherein the virus is a modified echovirus.

54. (Withdrawn) The pharmaceutical composition according to claim 51 wherein the virus has been modified to enhance ability of the virus to infect the abnormal cells.

55. (Withdrawn) The pharmaceutical composition according to claim 53 wherein the modified echovirus is a modified form of EVl or EV8.

56. (Withdrawn) The pharmaceutical composition according to claim 50 wherein the abnormal cells are cancer cells.

57. (Withdrawn) The pharmaceutical composition according to claim 50 wherein the pharmaceutical composition is for topical administration or injection.

58. (Withdrawn) An applicator for applying an inoculant to a mammal for generating a virus to treat abnormal cells in the mammal, wherein the applicator comprises a region impregnated with the inoculant, and the virus recognizes $\alpha_2\beta_1$ for infectivity of the cells and is selected from echoviruses, modified forms thereof, and combinations thereof.

59. (Withdrawn) The applicator according to claim 58 wherein the region impregnated with the inoculant comprises padding or wadding for holding the inoculant in contact with the mammal.

60. (Withdrawn) The applicator according to claim 58 wherein the abnormal cells are abnormal skin cells and the applicator further comprises one or more adhesive surfaces for adhering to skin of the mammal.

61. (Withdrawn) The applicator according to claim 58 wherein the region is in the form of a patch or sticking plaster.

62. (Withdrawn) A method for inducing an immune response against abnormal cells in a mammal comprising contacting the applicator of claim 58 with abnormal cells of a mammal, and allowing the virus to lyse at least one of the abnormal cells, thereby inducing an immune response against abnormal cells in the mammal.

63. (Canceled)